with all the colonies eggs, larvæ and pupæ. The queens lay freely in captivity, but a break in the normal succession of forms may be disastrous, because nurse duty is performed by the young, light-colored workers, the predaceous, hunting instincts appearing with greater maturity. The neglect of the young in some colonies and a frequent tendency to cannibalism may be ascribed to this deficiency of keleps of proper age, though even in colonies otherwise normal some of the larvæ are occasionally killed and fed to the others, especially if there has been a deficiency of other animal food.

Detailed reports on the social organization and other features will be made, but in the meantime it is apparent that a fair experiment to determine whether the kelep can maintain itself in the United States will require the planting of full-sized colonies early in the season, and in sufficient numbers, if possible, to protect the field of cotton from the leaf-worms as well as from the boll weevils. That the kelep is not a true ant, and that its habits differ so greatly from those of any other insects previously known, are facts that show how impracticable it would have been to determine its possibilities in advance by the application of analogies drawn from insects of other families.

O. F. Cook.

New Orleans,
March 16, 1905.

QUOTATIONS.

THE SANITATION OF THE PANAMA CANAL ZONE.

Dr. Charles A. L. Reed, chairman of the legislative committee of the American Medical Association, and lately president of this the representative organization of the medical profession throughout the United States, a man capable in every way of forming just conclusions and with the courage and capacity vigorously to express his convictions, has, at the request of the Secretary of War, submitted a report of the sanitary, or unsanitary, conditions in the Panama Canal Zone and in the towns of Panama and Colon placed by treaty under the management of the United States commission.

If the report of this gentleman is correct, and it must be accepted as such until it is proved that he has made misstatements, the sanitary department of the Panama commission has been in great measure paralyzed by circumlocution and red tape and the misguided interference of those who have been placed in authority over the medical corps. In certain quarters Dr. Reed's report has been classified as 'frenzied' literature; but if one-tenth of the criticisms which he has made were justified sanitary affairs on the Isthmus are in such deplorable shape that the president should compel an immediate change in a disgraceful and dangerous situation.

There is but one commonsense solution of this problem, and sooner or later it will be applied; but the chief magistrate should not wait to take this matter in hand until the graveyards of Panama are filled with the victims of 'red tape.'

As an illustration of the absurd methods employed, Dr. Reed says in substance that if the surgeon in charge of the Ancon Hospital makes a requisition for supplies it must go to the chief sanitary officer for approval, then to the governor of the zone, then to the chief disbursing officer and thence to the commission at Washington. It must there wait for advertised bids, and when the award is made the requisition is filled under the supervision of a purchasing agent, often not properly qualified to select medical supplies. The material is then shipped to the Isthmus, the disbursing officer is notified, he notifies Col. Gorgas, and he in turn must notify the surgeon in charge of the hospital, who then applies to the quartermaster for transportation; and, finally, so much of the material as in the judgment of the governor and chief disbursing officer and the commission ought to be allowed to the superintendent arrives at the hospital.

There are cited numerous other instances of this ridiculous routine which in the light of a recent experience are a reflection upon the intelligence and conscience of the American people.

We refer to Cuba, where Major Reed and Col. Gorgas practically had *carte blanche* to do what in their judgment was best for the sanitation of Havana and Cuba.

The present situation can be remedied satisfactorily in but one way. Col. W. C. Gorgas is known to be one of the most expert sanitarians now living. He is a man whose courage is of that exalted character which scorns personal danger, a man of integrity, of executive ability and worthy of the fullest confidence of the government. Why not repeat the experience of Cuba in Panama? Why go back to the old methods of crippling the usefulness of the Army Medical Corps by permitting it to be blocked by circumlocution or entangled in the meshes of red tape until it might almost as well not exist?

The people of the United States will oppose the president's removal of the present commission, and if he will go further and put an end to this dangerous condition of affairs by placing Col. Gorgas in full authority in all matters pertaining to sanitation he will deserve still greater credit. In the construction of the Panama Canal the question of sanitation is paramount.—The N. Y. *Sun*.

BOTANICAL NOTES.

A HELPFUL BULLETIN.

THE office of Experiment Stations of the United States Department of Agriculture has issued a Bulletin (No. 2) consisting of an outline of a lecture on 'Potato Diseases and Their Treatment' for the use of farmers' institute lecturers. It was prepared by F. C. Stewart and H. J. Eustace, of the New York Experiment Station. It contains summaries of our knowledge of the most important diseases which affect the potato in the United States. The descriptions are given in non-technical language, and ought to convince every botanist of the possibility of treating quite difficult subjects in plain English. Following the description of diseases is an admirable chapter on spraying and other preventive measures. A very useful bibliography is added in an appendix.

SEASIDE LABORATORIES.

IT is a fortunate thing for the scientific students of America that year by year the opportunities for seaside study are more common and easily accessible. Some of us remember the time, not so very long ago either, when Agassiz's laboratory on Penikese Island was the only place where seaside studies were possible under competent guidance and supervision. The Penikese laboratory has long since ceased to be—on the death of its illustrious founder it could not secure adequate support. It died, and men spoke of it as another visionary project which had met with the usual fate of an early death after a brief and fitful existence. But although that project died, others have arisen to more than take its place. To-day laboratories that include the essential features of the one founded by Agassiz are not uncommon on both coasts of the United States, as well as on the shores of our inland waters.

The eighteenth session of the Marine Biological Laboratory at Woods Hole, Mass., is of interest to the botanist not only on account of the botanical courses offered, but also because this is to a certain extent the lineal descendant of the Penikese laboratory whose abandoned site is but a few miles away. As heretofore, the work in botany is to be under the direction of Professor Doctor Bradley M. Davis, of the University of Chicago.

There are the usual opportunities for investigation for advanced students, and regular instruction in the morphology of thallophytes, cytological studies and plant physiology. The laboratory is open for investigation from June 1 to October 1, and for instruction from June 28 to August 9.

On the west coast of Vancouver Island, at Port Renfrew, twenty-six hundred miles from the Woods Hole laboratory, is the Minnesota Seaside Station, whose fifth session is announced for the present year, under the directorship of Professor Conway MacMillan, of the University of Minnesota. Although so far away from the pioneer Penikese laboratory, this one on Vancouver Island is filled also with the spirit of the master who taught us to study nature out of doors. Here, in addition to opportunities for investigation, botanical courses are offered in algology, lichenology, bacteriology, taxonomy of the Coniferæ and nature study. The session begins July 8 and closes August 18.